



SHILAP Revista de Lepidopterología

ISSN: 0300-5267

avives@orange.es

Sociedad Hispano-Luso-Americana de  
Lepidopterología  
España

Razowski, J.; Becker, V. O.  
Systematics and Faunistics of Neotropical Olethreutini, 2: Episimus Walsingham, 1892  
(Lepidoptera: Tortricidae)  
SHILAP Revista de Lepidopterología, vol. 45, núm. 177, marzo, 2017, pp. 59-73  
Sociedad Hispano-Luso-Americana de Lepidopterología  
Madrid, España

Available in: <http://www.redalyc.org/articulo.oa?id=45550375008>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System  
Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal  
Non-profit academic project, developed under the open access initiative

# Systematics and Faunistics of Neotropical Olethreutini, 2: *Episimus* Walsingham, 1892 (Lepidoptera: Tortricidae)

J. Razowski & V. O. Becker

## Abstract

Twelve species of *Episimus* Walsingham, 1892 are described and illustrated (*E. granpiedrae* Razowski & Becker, sp. n., *E. meranus* Razowski & Becker, sp. n., *E. joaquimus* Razowski & Becker, sp. n., *E. eisniveus* Razowski & Becker, sp. n., *E. niveopictus* Razowski & Becker, sp. n., *E. serenus* Razowski & Becker, sp. n., *E. spinuliferus* Razowski & Becker, sp. n., *E. cubaenatus* Razowski & Becker, sp. n., *E. maricao* Razowski & Becker, sp. n., *E. caracanus* Razowski & Becker, sp. n., *E. niveogriseus* sp. n., *E. opponens* Razowski & Becker, sp. n.), and distribution data on twelve other species are provided. *Episimoides* Diakonoff, 1957 is synonymized with *Episimus* and Afrotropical *Episimoides erythraea* Diakonoff, 1957 is transferred to *Episimus*.

KEY WORDS: Lepidoptera, Tortricidae, *Episimus*, new species, new synonyms, distribution, Neotropics.

## Sistemática y faunística de Olethreutini Neotropical, 2: *Episimus* Walsingham, 1892 (Lepidoptera: Tortricidae)

## Resumen

Se describen e ilustran doce especies de *Episimus* Walsingham, 1892 (*E. granpiedrae* Razowski & Becker, sp. n., *E. meranus* Razowski & Becker, sp. n., *E. joaquimus* Razowski & Becker, sp. n., *E. eisniveus* Razowski & Becker, sp. n., *E. niveopictus* Razowski & Becker, sp. n., *E. serenus* Razowski & Becker, sp. n., *E. spinuliferus* Razowski & Becker, sp. n., *E. cubaenatus* Razowski & Becker, sp. n., *E. maricao* Razowski & Becker, sp. n., *E. caracanus* Razowski & Becker, sp. n., *E. niveogriseus* sp. n., *E. opponens* Razowski & Becker, sp. n.), y se proporcionan datos de distribución de otras doce especies. *Episimoides* Diakonoff, 1957 se sinonimiza con *Episimus* y *Episimoides erythraea* Diakonoff, 1957 se transfiere a *Episimus*.

PALABRAS CLAVE: Lepidoptera, Tortricidae, *Episimus*, nuevas especies, nueva sinonimia, distribución, Neotrópico.

## Introduction

Two papers were devoted to New World *Episimus*; HEPPNER (1994) revised the Nearctic species and redescribed the genus additionally listing the food plants of *Episimus* belonging to 18 plant families. RAZOWSKI & BROWN (2008) revised Neotropical members of *Episimus* listing 60 species and described 34 new species. According to BROWN (2005) the genus included 30 species. At present, *Episimus* with its 71 described species is the most species-rich New World tortricine genus. RAZOWSKI & BROWN (2008) divided *Episimus* into eleven species groups and proposed the systematic arrangement of species followed in this paper.

Apart from the New World species *Episimus* has two representatives in the Afrotropical region, *E. erythraea* Diakonoff, 1957, **comb. n.** and *E. cyanitis* Meyrick, 1932 (see BROWN, 2005).

The abbreviations used are as follows: BC - Becker collection, GS - genitalia slide, WZ - Witold Zajda.

## Material

All the specimens were collected by the second author; the material examined, including the holotypes of the newly described species, is preserved in the Becker Collection, Camacan, and will be deposited in one of the Brazilian Museums in the future. Some spare specimens have been kindly donated to the Institute of Systematics and Evolution of Animals, Polish Academy of Sciences, Kraków.

The specimens have been collected in Brazil (states: Bahia, Federal District, Minas Gerais, Paraná, Piauí, Rondonia, Santa Catarina), British Virgin Islands, Costa Rica, Cuba, Ecuador (provinces: Carchi, Napo, Pastaza, Tungurahua), Mexico (state Tamaulipas), Puerto Rico and the U.S.A. (Virgin Island).

The specimens were collected at light. The moths were pinned during field work, some of them were then relaxed and set in the laboratory. Other methods are discussed by RAZOWSKI & BROWN (2008).

## Systematic part

*Episimus* Walsingham, 1892, Proc. Zool. Soc. London, **1891**: 501; type-species *Carpocapsa transferrana* Walker, 1863.

*Antictenista* Meyrick, 1927, Exotic Microlepid., **3**: 337; type-species: *Antictenista mesotricha* Meyrick, 1927.

*Episimoides* Diakonoff, 1957, Mém. Inst. Scient. Madagascar, **8**: 274; type species: *Episimoides erythraea* Diakonoff, 1957 - **syn. n.**

*Episimus caveatus* (Meyrick, 1912)

Two specimens examined: Costa Rica (Turrialba 600 m, 10-II-1973) and Ecuador (Carchi, Maldonado 2700 m, 9-II-1991, BC 105822).

Remarks: This species was known from Costa Rica, French Guiana, Guiana, Trinidad, Jamaica, Panama, and Venezuela.

### *Episimus granpiedrae* Razowski & Becker, sp. n. (Fig. 21)

Holotype male: Cuba: S[an]t[i]ago, Gran Piedra, 20-II-1990, V. O. Becker Col.; Col. Becker 72994; GS 1164 WZ. Paratypes four identically labelled males and one male from Puerto Rico: Maricao, 770 m, 12-VIII-1987, V. O. Becker Col.; Col. Becker 67647; GS 1165 WZ.

Description: Wing span 20 mm. Head dark brown, frons and vertex black; thorax brown, black-brown along middle. Forewing brownish sprinkled whitish subdorsally and beyond costal part of median fascia. Markings black-brown: dorsobasal blotch extending costad posteriorly, atrophying dorsoposteriorly; median fascia cinnamon brown at costa, brown towards end of median cell, indistinct in dorsal third; tornal blotch minute, brown; posterior part of wing brown white edged proximally. Cilia brown, paler medially. Hindwing dark brown; cilia paler, more grey.

Male genitalia (Fig. 1): Top of uncus extending beyond socii; socius expanding posterad where spined; sacculus weakly convex; ventral incision of valva atrophied; cucullus broad convex ventrocaudally with long, ventroproximal row of spines; henion slender; aedeagus moderately large, weakly curved; cornuti a large dense group of short spines.

Female unknown.

Diagnosis: *E. granpiedrae* is related to *E. caveatus* but has quite different forewing markings (in *caveatus* rust, variegate, in *granpiedrae* dark brown consisting of two main blotches). Male genitalia of

*granpiedrae* are distinct chiefly by the lack of ventral incision of the valva and long row of spines from the ventral end of the cucullus.

Etymology: The name refers to the type locality, Gran Piedra.

***Episimus meranus* Razowski & Becker, sp. n. (Fig. 22)**

Holotype male: Ecuador: Past[aza], Mera, 1300 m, XII-1992, V. O. Becker Col.; Col. Becker 100709; GS 509 WZ.

Description: Wing span 17 mm. Head and thorax brownish yellow, frons and upper part of labial socius brown. Ground colour of forewing pale brownish yellow, dotted and sprinkled yellow-brown and brown, suffused brown in dorsal and median parts of wing; brown fascia from wing base to beyond end of median cell; costal strigulae indistinct, divisions weak, yellow brown; ocellus reduced to three brown spots and posterior refractive line. Cilia brownish yellow (damaged), brown basally. Cilia brownish, cilia creamish, brownish grey in anal part of wing.

Male genitalia (Fig. 2): Uncus broad, setose to middle, distinctly tapering terminad; socius broad, rounded posteriorly, slender in proximal third; gnathos arm strongly sclerotized; sacculus short with small terminal projection; ventral incision of valva distinct; submedian lobe of cucullus and its spines fused with its posterior smaller spines; aedeagus short; henion long, slender in posterior half.

Female unknown.

Diagnosis: *E. meranus* differs from *vermiculatus* in having a long oblique fascia from the wing base to the subapical area, the broader, rounded posterior half of the socius and large ventral lobe of cucullus with spined area fused with spines of the posterior edge.

Etymology: The specific name refers to the type locality, Mera.

*Episimus semicircularanus* (Walker, 1863)

Several specimens from Puerto Rico (Maricao, 770 m, 12-VIII-1987, VOB 67645) and Brazil (Rondonia, Caculandia 140 m, IX-1991, BC 76353, 80225, 80227).

Remarks: *E. semicircularanus* is known from Central America, Caribbean (Dominica), and South America (Venezuela, Guiana, Brazil, Peru).

*Episimus vermiculatus* (Meyrick, 1912)

One male from Ecuador (Tungurahua, Río Verde, 1600 m, 26-VII-1992, BC 104075) and one from Brazil (Lagoas, Ibateguara, 400 m, 10-20-III-1994, BC 92079) examined.

Remarks: *E. vermiculatus* was described from Colombia; it was known also from Costa Rica and Venezuela and occurs at altitudes between 500-1600 m.

***Episimus joaquimus* Razowski & Becker, sp. n. (Fig. 23)**

Holotype male: Brasil: S[anta]C[atarina], São Joaquim, 1400 m, 25-X-1995, V. O. Becker Col.; Col. Becker 98177; GS 914 WZ. Paratypes two identically labelled males and one female GS 915 WZ.

Description: Wing span 18 mm. Head pale rust brown; thorax and distal part of tegula white with proximal and posterior lines of thorax darker, median line grey. Ground colour of forewing whitish strigulated grey-brown, in distal half concolorously suffused except for ocellar area and small blotch in costopostmedian area which are white separated from one another by bluish refractive fascia extending from tornus to costa. Costal strigulae and divisions small; ocellar spots present. Cilia pale brownish, creamish in dorsal half of termen. Hindwing whitish suffused brown, brownish on peripheries; cilia cream.

Variation: Female forewing with strong strigulation in basal half.

Male genitalia (Fig. 3): Uncus long, slender; socius broad proximally, tapering distad with some lateral thorns; gnathos distinct; sacculus tapering posteriorly; ventral incision of valva indistinct; spiny ventral lobe of cucullus separate from its posterior slender part; aedeagus short; henion long, slender.

Female genitalia (Fig. 13): Sterigma broad with distinct longitudinal ribs, expanding terminad; sclerite of antrum moderately long; ductus bursae rather short; cingulum slender; blades of signum slender.

Diagnosis: *E. joaquimus* is similar to *E. moderabilis* Razowski & Brown, 2008 but differs from it by having white thorax, long uncus and slender blades of the signum.

Etymology: The name refers to the type locality, São Joaquim.

***Episimus eisniveus* Razowski & Becker, sp. n. (Fig. 24)**

Holotype male: Mexico: Tam[aulipas], Gomes Farias, 1000 m, 29-31-VII-1988, V. O. Becker Col.; Col. Becker 69821. Not dissected. Paratypes four males and two females, identical labels, GS 932 WZ [male], 931 WZ [female].

Description: Wing span 18 mm. Head cream orange, frons and posterior part of labial palpus cream; thorax white, brown and black proximally. Ground colour of forewing white preserved chiefly in dorsal half of wing where strigulated brown-grey; terminal fourth of wing cream with orange suffusion posteriorly; remaining area brownish with dark brown marks. Costal strigulae fine; divisions large, dark brown, white edged. Cilia cream orange brown scaled at mid-termen. Hindwing pale brownish; cilia white cream.

Male genitalia (Fig. 4): Uncus and distal part of socii damaged, proximal half of socius with strong spines; ventral incision of valva well developed; spiny lobe of cucullus triangular, posterior part with weak spines and hairs; aedeagus broad, simple.

Female genitalia (Fig. 14): Proximal part of sterigma rounded, posterior part extending distally; sclerite of antrum short; cingulum small, fairly broad; signa slender.

Diagnosis: In the facies *E. eisniveus* is similar to *E. ortygia* and *E. joaquimus*; in the male genitalia *E. eisniveus* differs from them in having broad socius with atropied proximal lobe and with strong spines along median edge similar to those in *E. vixenus* Razowski & Brown, 2008 from West Indies. Female genitalia are similar to those of *E. albifrons* Razowski & Brown, 2008 from Costa Rica but *eisniveus* with broad cingulum and longer blades of the signa.

Etymology: The specific name refers to the colouration of the forewing; Greek: *εἶσο* - towards middle, Latin: *niveus* - white.

***Episimus vixenus* Razowski & Brown, 2008**

Seven specimens from British Virgin Island (Guana I., 0-80 m, 9-23-VII-1987, V. O. Becker & S. E. Miller and X-1989, V. O. Becker).

Remarks: *E. vixenus* is known from West Indies from the type locality only.

***Episimus antiguanus* Razowski & Brown, 2008**

Two specimens from the USA Virgin Island (St. Thomas, 300 m, 25-30-VII-1987; CB 67167).

Remarks: *E. antiguana* was known only from British West Indies (Antigua).

***Episimus niveopictus* Razowski & Becker, sp. n. (Fig. 25)**

Holotype male: Cuba: S[an]t[ia]go. Sier.[ra] Maestra P. Cuba, 31-VII-1990, 1500 m, V. O. Becker Col.; Col. Becker; GS 1146 WZ.

Description: Wing span 16 mm. Head and collar pale cinnamon brown; thorax blackish with some groups of glossy scales. Ground colour of forewing clear white in form of two blotches, dorsobasal and tornooocellar, the former with pale orange brown posterior suffusion; apex and subapical area concolorous with latter; one subapical white strigula present, the remaining ones vestigial; divisions black, confluent. Remaining area blackish with black marks and refractive spots; numerous pale refractive dots along veins CuP and 1A+2A; black line along mid-termen. Cilia blackish, rust at apex, white at dorsal half of termen. Hindwing brownish; cilia paler.

Male genitalia (Fig. 5): Uncus slender; socius broad oval, hairy; gnathos fairly weak; sacculus convex; neck of valva short; ventral lobe of cucullus short, broad, densely spined; aedeagus broad, simple.

Female unknown.

Diagnosis: In male genitalia *Episimus niveopictus* similar mostly to *E. antiguanus* but easily distinguished by black and white colouration of the forewings.

Etymology: The specific epithet refers to the colouration of the forewings; Latin: *niveus* - snow white, *pictus* - painted.

***Episimus serenus* Razowski & Becker, sp. n. (Fig. 26)**

Holotype male: Ecuador: Napo, Misahualli, 450 m, XII-1992, V. O. Becker Col.; Col. Becker 102213; GS 904 WZ. Paratypes two identically labelled females.

Description: Wing span 16 mm. Head pale creamish brown, labial palpus darker, cream ventrally and terminally; thorax yellow-brown, tegula with brown marks. Ground colour of forewing in dorsal and postmedian areas cream tinged pale rust in costal and tornal areas densely lined and strigulated rust brown, with similarly coloured costal remnant of median fascia; costal strigulae cream, divisions brown; two inner spots of ocellus brown followed by rust suffusion directed to subcostal area; tornal blotch black-brown elongate, dark brown proximally edged rust. Cilia rust, black at mid-termen. Hindwing brown; cilia paler, tinged rust.

Male genitalia (Fig. 6): Basal part of uncus broad, posterior part fairly short; socius broad posterior part rounded, broad; gnathos well sclerotized; sacculus angulate, slightly convex; ventral lobe of cucullus short, rounded, spined; aedeagus short, simple; henion long.

Female unknown.

Diagnosis: In the facies *E. serenus* is somewhat similar to *E. mesotricha* (Meyrick, 1927) from São Paulo, Brazil but *serenus* has elongate black-brown tornal spot, dense strigulation, and broad uncus. From *E. macropterus* it differs in the shape of the forewing, dark brown hindwing.

Etymology: The name refers to colouration of posterior part of forewing; Latin: *serenus* - clear, light.

***Episimus spinuliferus* Razowski & Becker, sp. n. (Figs 27, 28)**

Holotype male: Brasil: M[inas]G[erais], Caraca, 1300 m, 25-X-1994, V. O. Becker, K. S. Sattler Col.; Col. Becker 93575; GS 906 WZ. Paratypes one male and one female with GS 907 WZ.

Description: 14 mm. Head white, labial palpus along middle and vertex cream; thorax white cream, tegula brownish with some blackish dots. Forewing ground colour white cream tinged brownish in median and posterior part of costal third; costal strigulae small, white; divisions dark brown; ocellar area with three long inner strigulae and weak posterior refractive line followed by white line similar to line separating apex; grey suffusion towards tornus; veins of posterior third of wing brownish. Cilia rubbed, probably cream brown with brown basal line. Hindwing brownish grey; cilia (remnants) paler.

Variation: Female wing span 19 mm. Head and thorax browner than in male, frons whitish. Ground colour of forewing pale brownish cream paler in dorsal area where densely spotted black, larger spots near tornus; creamish brown diffuse fascia from wing base to end of median cell and a diffuse spot at dorsum; cilia yellow-brown. Hindwing dark brown, cilia creamish.

Male genitalia (Fig. 7): Uncus slender, slightly broadening at base; socius slender, tapering terminad, finely thorny laterally; sacculus short; ventral incision of valva short; ventral lobe of cucullus small, heavily thorny; aedeagus short; henion long, slender.

Female genitalia (Fig. 15): Sterigma rounded proximally with two posterior ribs, first edging ostium bursae; antrum sclerite short; cingulum weak, proximal; signa equally sized.

Diagnosis: In facies, *E. spinuliferus* is similar to *E. macropterus* Razowski & Brown and *E.*

*pitillae* Razowski & Brown from Costa Rica but *spinuliferus* has brown lines along veins in terminal third of wing, long uncus and socii and short sclerite of the antrum.

Etymology: The name refers to spinulation of the socii; Latin: *spinula* - a small spine, *fero* - I carry.

*Episimus intermissus* (Meyrick, 1931)

Nine specimens from Brazil (Paraná, Curitiba, 920 m, 15-III-1975, BC 14582; Marumbi, 500 m, 21-XI-1971, BC 1321, BC 14584; Quatro Barras, 850 m, 6-VI-1985 (800 m) 28-VI-1970, BC 1322, BC 34431, BC 34474, BC 34542, BC 34585).

Description: Male genitalia (Fig. 8): Uncus moderately broad, expanding basally; socius short, broad, hairy; gnathos well developed; sacculus weakly angulate; ventral incision of valva deep followed by broad ventral lobe of cucullus; aedeagus simple, broad; henion broad posteriorly.

Female genitalia (Fig. 16): Sterigma in form of two lateral plates connected distally and dorsally by means of a membrane, sclerotized along middle and proximally; sclerite of antrum short, broad; cingulum slender; signa large.

Remarks: *E. intermissus* was described from São Paulo, Brazil; RAZOWSKI & BROWN (2008) recorded further two examples from Brazil (state of Rio de Janeiro). It is widely distributed from Rio de Janeiro and São Paulo south to Paraná.

*Episimus albidorsanus* Razowski & Brown, 2008

Several specimens from the type locality (Brazil: Planaltina, 1100 m, 15-IV-1989, Federal District, BC 96678).

Remarks: *E. albidorsanus* is known to date from the type locality and Colombia.

***Episimus cubaenatus* Razowski & Becker, sp. n. (Fig. 29)**

Holotype female: Cuba: Holguin, Pin. Mayari, 640 m, VII-1990, V. O. Becker Col.; Col. Becker 72037; GS 1172 WZ. Paratypes five males and one female, identical labels, BC 72037 and 72038, female with GS 1160 WZ.

Description: Wing span 10 mm. Head pale cinnamon brown, labial palpus with brown marks, frons brownish cream; thorax grey with blackish marks. Ground colour of forewing whitish with grey suffusions preserved in form of dorsal, subternal blotches, two streaks near mid-costa and ocellar blotch with traces of marks. Remaining area white-grey with dark grey and blackish spots and strigulae. Costal strigulae indistinct, divisions blackish. Cilia blackish. Hindwing grey mixed brown on peripheries; cilia brownish grey.

Variation: Pale and dark specimens with more or less indistinct ground colour parts of forewing.

Male genitalia (Fig. 9): Uncus slender; socius moderately large with hairs and spines; ventral incision of valva weak followed by distinct spined lobe; aedeagus simple, short.

Female genitalia (Fig. 17): Lateral parts of postostial sterigma subtriangular connected by a slender proximal part, with postmedian prominence of inner edge; sclerite of antrum slender, long; cingulum absent; one signum preserved.

Diagnosis: In facies, *E. cubaenatus* resembles female of *E. albifrons* Razowski & Brown, 2008 from Costa Rica but *cubaenatus* has blackish forewing markings and small areas of the ground colour; male genitalia as in *E. antiguanus* Razowski & Brown, 2008 but with slightly longer uncus and shallow ventral incision of the valva; the female genitalia with long sclerite of the antrum and one signum.

Etymology: The specific name refers to Cuba, the country of origin and Latin: *natus* - born.

*Episimus camacanus* Razowski & Brown, 2008

Five males from Brazil (Bahia, Camacan, 400-700 m, 13-14-IV-1992; BC 84788).

Remarks: The above specimens were collected in the type locality of this species. The female remains unknown.



***Episimus maricao* Razowski & Becker, sp. n. (Fig. 30)**

Holotype male: Puerto Rico: Maricao, 770 m, 12-VIII-1987, V. O. Becker Col.; Col. Becker 67642; GS 1144 WZ.

Description: Wing span 11 mm. Head pale rust-brown, thorax darker. Ground colour of forewing whitish with weak brownish hue and strigulae preserved along dorsum from mid-base of wing to before tornus where extending towards median cell, straight to wing base. Remaining area yellow-brown with indistinct brown strigulae and multiple whitish dots extending from wing base to before mid-termen. Costal strigulae small, white; divisions brown; ocellus brownish white with dots and refractive lines. Cilia brownish yellow, brown at median part of termen, creamer towards tornus. Hindwing brownish; cilia paler.

Male genitalia (Fig. 10): Uncus slender, in basal half weakly broadening; socius broad, hairy; sacculus broad, angulate; ventral lobe of cucullus elongate-triangular; aedeagus slender posteriorly.

Female unknown.

Diagnosis: *E. maricao* is most similar to *E. vixenus* but *maricao* has oblique dorsal edge of proximal half of dark pattern reaching mid-base of wing (in *vixenus* it is parallel to the dorsum) and dark brown-grey hindwing. Uncus of *maricao* and ventral lobe of cucullus are longer than in *vixenus*.

Remarks: Specimens from Cuba (Pinar Rio, Sierra Rosario, 400 m, 4-6-X-1989; GS 1154 WZ) slightly differ from the holotype and are not included in the type-series.

Etymology: The specific name refers to the type locality.

***Episimus tyrius* Heinrich, 1923**

Material examined: Several specimens from Cuba (Santiago, Sierra Maestra, 1500 m, 31-VII-1990 and Holguin, Pin.[ar] Mayari 640 m, VII-1990).

Remarks: *E. tityrus* was known from the USA and Bermuda (see HEPPNER, 1994), RAZOWSKI & BROWN (2008) recorded it also from Costa Rica, and summarized the biological data.

***Episimus minas* Razowski & Brown, 2008**

One female labelled identically as the holotype: Brazil (Minas Gerais, Caraca, 1300 m, 25-X-1994, CB 93581).

Description: Female genitalia (Fig. 18): Sterigma broad, widely rounded proximally, protruded in middle posteriorly; sclerite of antrum subterminal, long, slender; cingulum antemedian, long, extending proximally; blades of signa slender.

***Episimus mahaianus* (Felder & Rogenhofer, 1875)**

Five specimens from Brazil (Rondonia: Pipa, 20 m, 28-31-1994, BC 91542).

Remark: Widely distributed in Brazil (RAZOWSKI & BROWN, 2008), now known also from Rondonia (Cacaulandia).

***Episimus caracanus* Razowski & Becker, sp. n. (Fig. 31)**

Holotype male: Brasil: M[inas]G[erais], Caraca, 1300 m, 25-X-1994, V. O. Becker & K. S. Sattler Col.; Col. Becker 93576; GS 459 WZ.

Description: Wing span 16 mm. Head brownish, vertex white cream; thorax white cream grey proximally. Forewing costa and termen weakly convex. Dorsal half of wing whitish with grey lines and two diffuse blotches posteriorly, and rounded purple brown median blotch. Costal part of wing brownish grey; costal strigulae small, white, divisions brown; ocellus with distinct spots; large oval subcostal blotch tinged orange costally; termen rust brown at mid-termen. Cilia (rubbed) grey and whitish. Hindwing creamish grey; cilia whiter.

Male genitalia (Fig. 11): Uncus slender, moderately long; socius broad; gnathos delicate; angle of



sacculus weak; ventral incision of valva distinct, short; ventral lobe of cucullus broad, weakly convex without a gap between its spines and spines of ventral edge; aedeagus short, simple.

Female unknown.

Diagnosis: In facies, *E. caracanus* is very similar to *E. transferranus* (Walker, 1863) but has no strong transverse lineation or strigulation of the forewing and oval cream range subcostal blotch. In male genitalia *caracanus* is most similar to *E. religiosus* (Meyrick, 1917) from British Guiana but has larger ventral lobe of cucullus and has distinct median blotch of the dorsum.

Etymology: The name refers to the type locality, Caraca.

*Episimus transferranus* (Walker, 1863)

One male from Mexico (Tamaulipas, El Ensino, 250 m, 4-13-VIII-1988); four males and three females from Cuba (Santiago, Turguino, 470 m, 28-29-VII-1990), and a pair from Brazil (Goiás, Ipameri, 10-X-1988 and one male from Alagoas, Ibateguara, 400 m, 10-20-III-1994).

Remarks: *E. transferranus* is widely distributed in the New World, from Florida, Texas and Mexico through Central America, Caribbean to South America (Venezuela, Trinidad, Colombia, Brazil).

***Episimus niveogriseus* Razowski & Brown, sp. n. (Fig. 32)**

Holotype male: Brasil: Pi[auí], Oeiras, 200 m, 12-IV-1994, V. O. Becker, Col.; Col. Becker 92399; GS 908 WZ.

Description: Wing span 12 mm. Head and thorax grey cream, labial palpus browner, thorax with brown-grey marks. Forewing ground colour whitish with grey strigulae, lines and spots, slightly mixed yellowish along costa. Costal strigulae weak, divisions brown; ocellus with minute spots. Markings black-grey in form of basal, costopostmedian and mediodorsal blotches. Cilia rubbed. Hindwing brownish, cilia similar.

Male genitalia (Fig. 12): Uncus broken, weakly expanding basally; socius moderately broad; sacculus rather short, rounded distally; ventral incision of valva small; ventral lobe of cucullus short, broad, posterior part of cucullus slender; aedeagus short.

Female unknown.

Diagnosis: In facies *niveogriseus* is somewhat similar to *E. transferranus* but differs from it in having grey markings and large costal part of basal blotch preserved. In the male genitalia *niveogriseus* has rather uniformly broad, laterally thorned socii and distinctly convex sacculus.

*Episimus beckeri* Razowski & Brown, 2008

Several specimens from the type locality: Porto Velho, 1800 m, Rondonia, Brazil.

Description: Female genitalia (Fig. 19): Sterigma in form of two fairly well sclerotized, triangular lateral lobes medially edged by a slender sclerite; antrum sclerite broad, weak; cingulum short; signa broad.

Remarks: *E. beckeri* was recorded only from the type locality.

Etymology: The name refers to the colouration of the forewings; Latin: *niveus* - snow white, *griseus* - grey.

***Episimus opponens* Razowski & Becker, sp. n. (Fig. 33)**

Holotype female: Brasil: M[inas]G[er]ais, Caraca, 1300 m, 1-2-IV-1992, V. O. Becker; Col. Becker 85276; GS 512 WZ.

Description: Wing span 21 mm. Head yellow-brown, thorax similarly coloured with brown markings. Forewing ground colour yellow-brown marbled rust brown, in median area suffused bluish grey; costal strigulae fine, brownish yellow; divisions dark brown; ocellus brownish yellow with two

black inner spots; termen edged pale yellow-brown. Cilia paler than termen with blackish suffusions. Hindwing dark brown, cilia pale, creamer.

Male unknown.

Female genitalia (Fig. 20): Anteostial part of sterigma slender; postostial sterigma in form of two lateral wings with strongly sclerotized inner edges; sclerite of antrum moderate; cingulum slender; basal sclerites of signa very long, serrate, blades broad.

Diagnosis: Facies similar to *E. rufotegulus* Razowski & Brown, 2008 from Costa Rica but forewing apex pale ferruginous and postmedian area with strong leaden black markings; female genitalia with sterigma similar to *rufotegulus* but signa unique in the genus with long basal sclerites.

Etymology: The specific name refers to the systematic position of the similar species, *rufotegulus*; Latin: *opponens* - opposed.

## BIBLIOGRAPHY

- BROWN, J. W., 2005.— *World Catalogue of Insects. Tortricidae (Lepidoptera)*, **5**: 741 pp. Apollo Books, Stenstrup.  
 HEPPNER, J. B., 1994.— *Episimus* moths of North America (Lepidoptera: Tortricidae).— *Holarctic Lepidoptera*, **1**: 83-107.  
 RAZOWSKI, J. & BROWN, J. W., 2008.— New species, new combinations, and new synonymies in Neotropical *Episimus* Walsingham, 1892 (Lepidoptera: Tortricidae: Olethreutinae).— *Acta Zoologica Cracoviensis*, **51B**(1-2): 83-144.

\*J. R.  
 Institute of Systematics and Evolution of Animals  
 Polish Academy of Sciences  
 Ślawkowska, 17  
 PL-31-016 Kraków  
 POLONIA / POLAND  
 E-mail: Razowski@isez.pan.krakow.pl

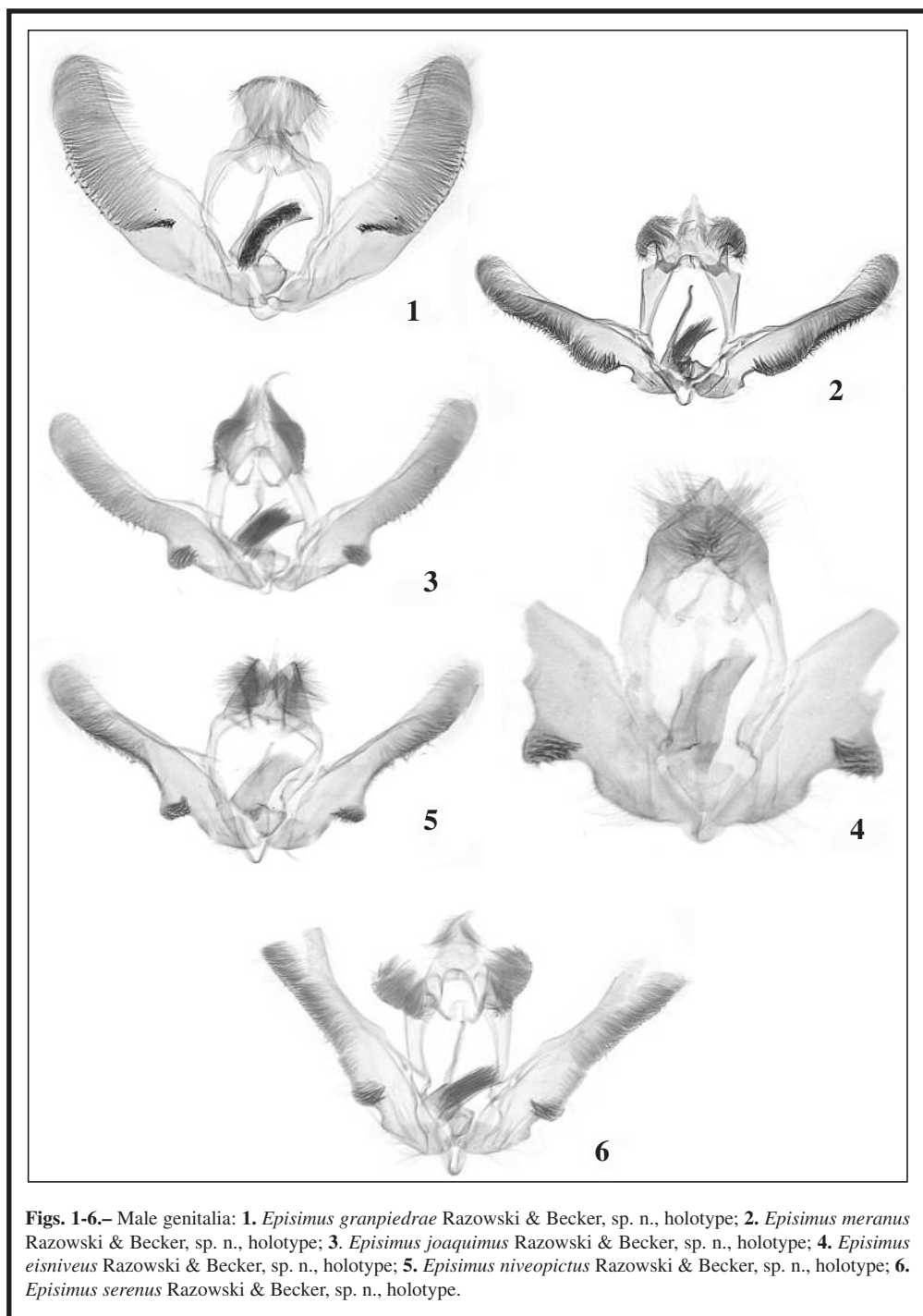
V. O. B.  
 Reserve Serra Bonita  
 P.O. Box 01  
 45880-970, BA  
 BRASIL / BRAZIL  
 E-mail: becker.vitor@gmail.com

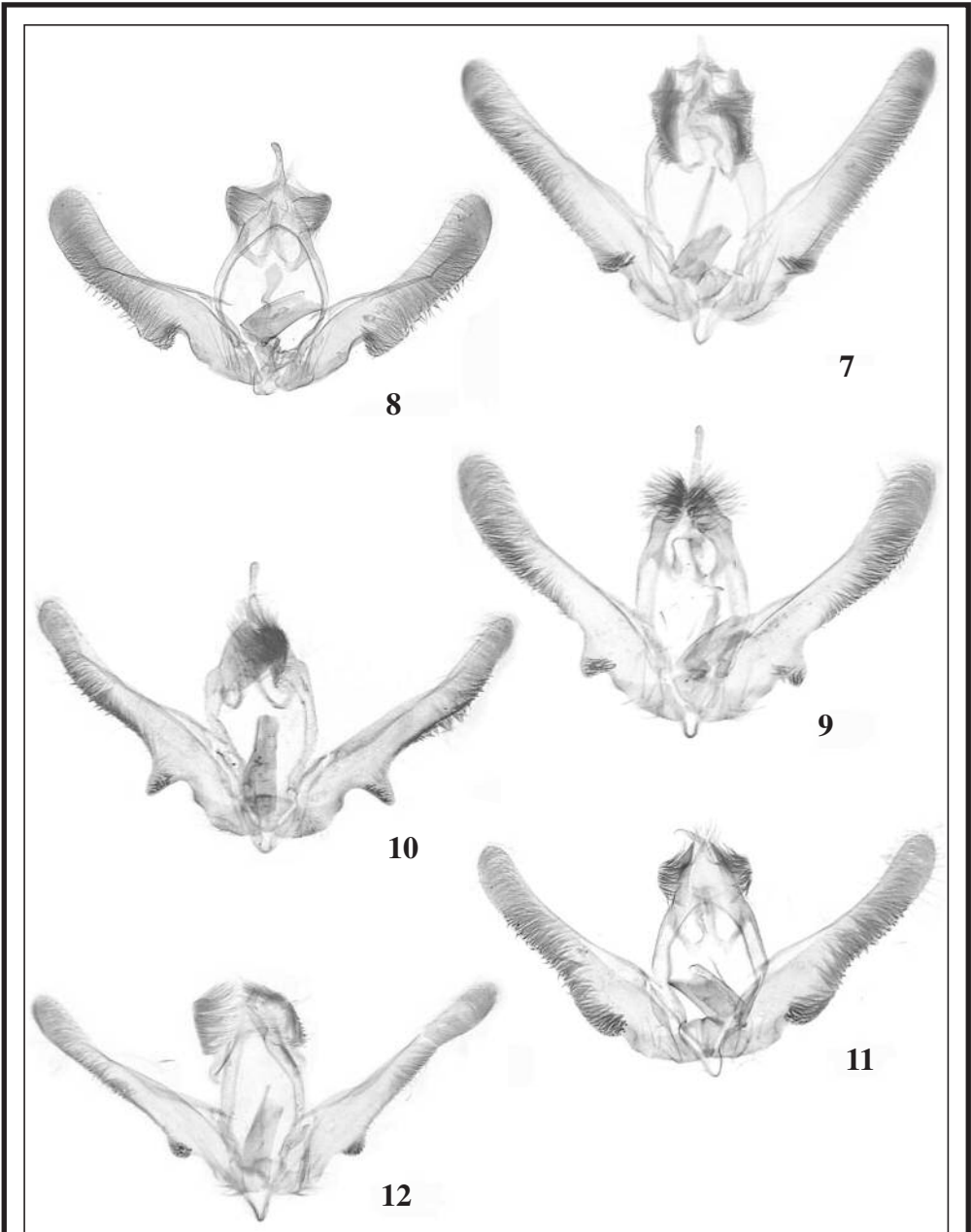
\*Autor para la correspondencia / *Corresponding author*

(Recibido para publicación / *Received for publication* 12-V-2016)

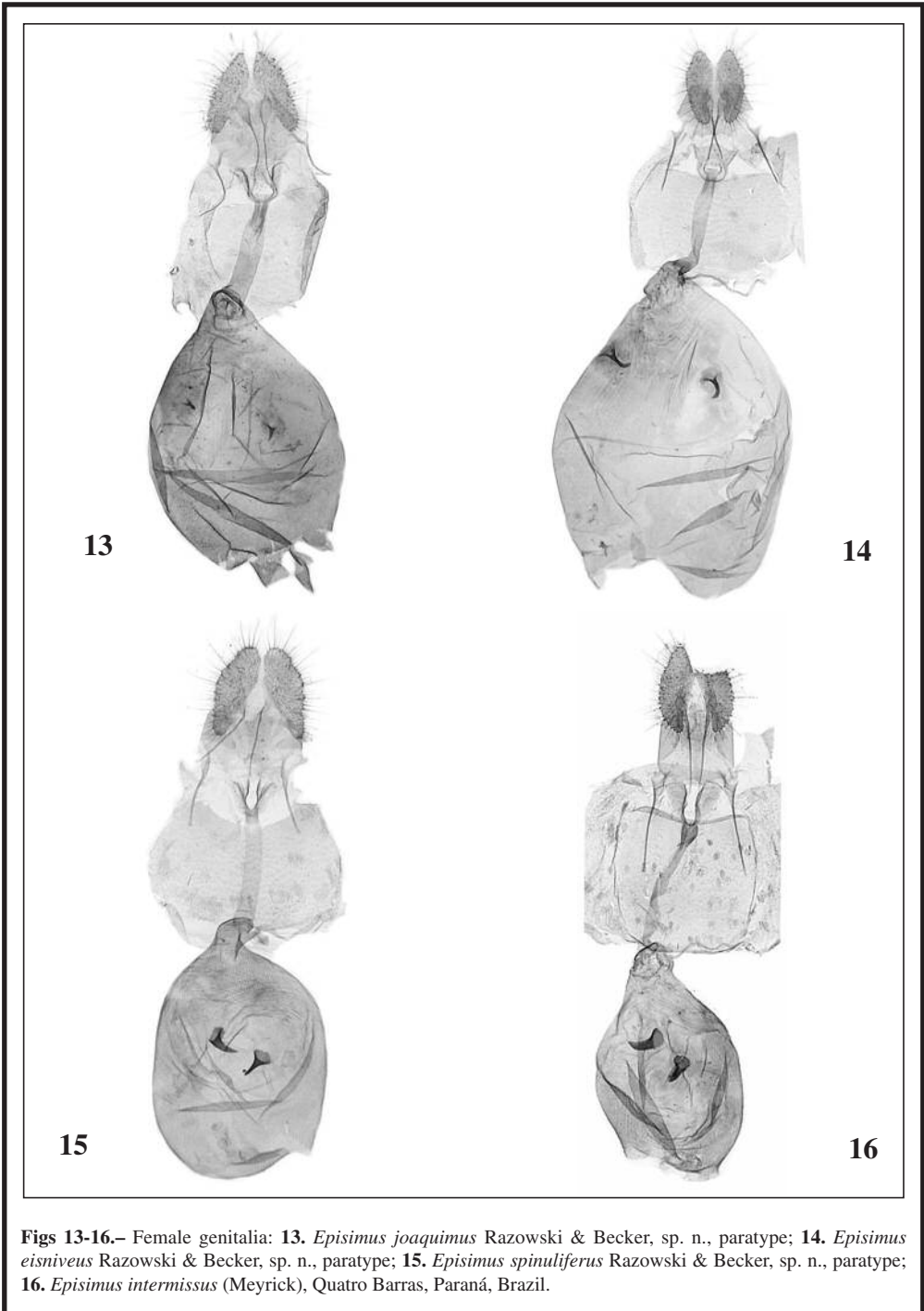
(Revisado y aceptado / *Revised and accepted* 6-VII-2016)

(Publicado / *Published* 30-III-2017)

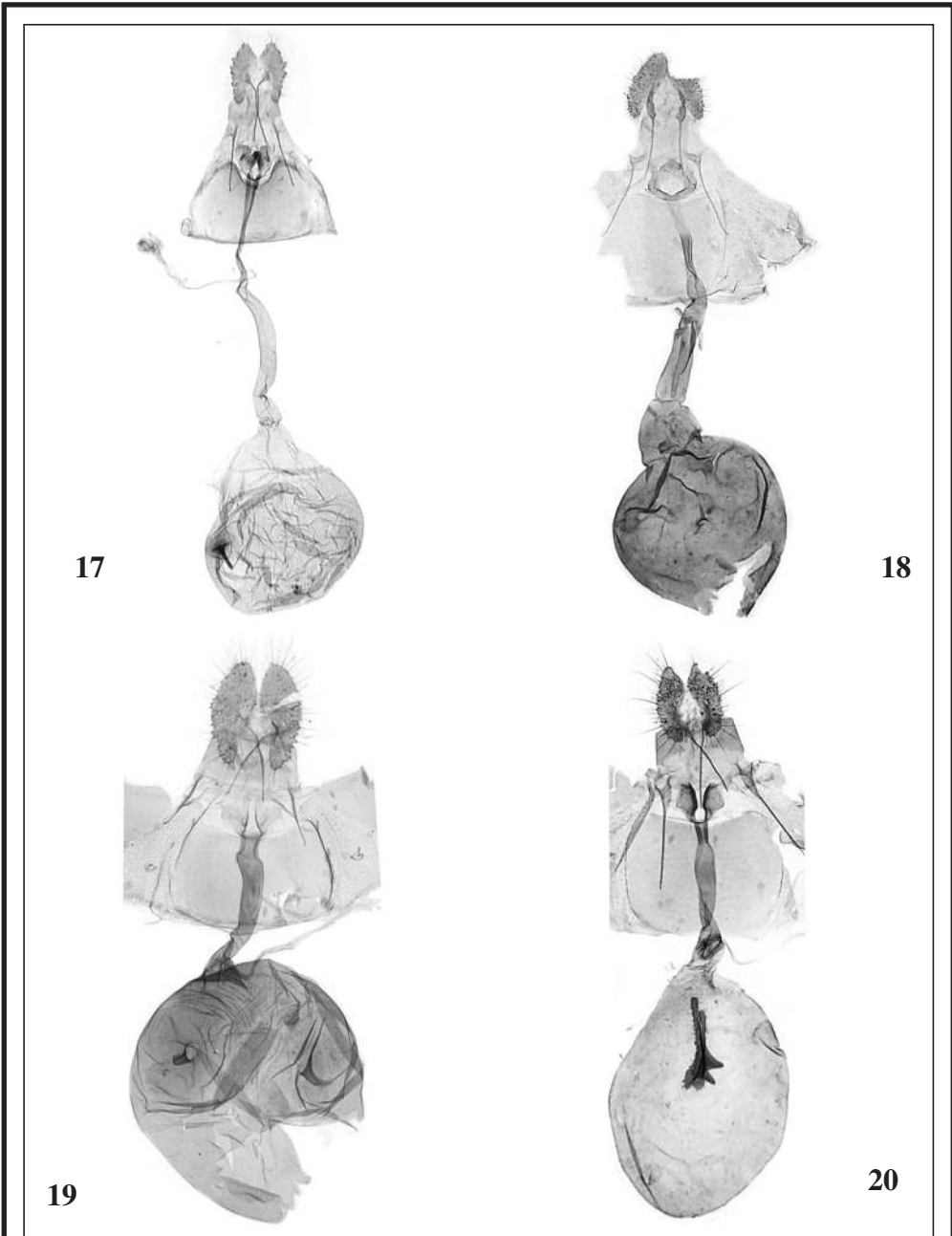




**Figs 7-12.**— Male genitalia: **7.** *Episimus spinuliferus* Razowski & Becker, sp. n., holotype. **8.** *Episimus intermissus* (Meyrick), Curitiba, Brazil; **9.** *Episimus cubaenatus* Razowski & Becker, sp. n., paratype; **10.** *Episimus maricao* Razowski & Becker, sp. n., holotype; **11.** *Episimus caracanus* Razowski & Becker, sp. n., holotype; **12.** *Episimus nivogriseus* Razowski & Becker, sp. n., holotype.



**Figs 13-16.**— Female genitalia: **13.** *Episimus joaquimus* Razowski & Becker, sp. n., paratype; **14.** *Episimus eisiniveus* Razowski & Becker, sp. n., paratype; **15.** *Episimus spinuliferus* Razowski & Becker, sp. n., paratype; **16.** *Episimus intermissus* (Meyrick), Quatro Barras, Paraná, Brazil.



**Figs 17-20.**– Female genitalia: **17.** *Episimus cubaenatus* Razowski & Becker, sp. n., holotype; **18.** *Episimus minas* Razowski & Brown, Bahia, Brazil; **19.** *Episimus beckeri* Razowski & Brown, Rondonia, Brazil; **20.** *Episimus opponens* Razowski & Becker, sp. n., holotype.





**Figs 21-27.**— Adults: **21.** *Episimus granpiedrae* Razowski & Becker, sp. n., holotype; **22.** *Episimus meranus* Razowski & Becker, sp. n., holotype; **23.** *Episimus joaquimus* Razowski & Becker, sp. n., holotype; **24.** *Episimus eisniveus* Razowski & Becker, sp. n., holotype; **25.** *Episimus niveopictus* Razowski & Becker, sp. n., holotype; **26.** *Episimus serenus* Razowski & Becker, sp. n., holotype; **27.** *Episimus spinuliferus* Razowski & Becker, sp. n., holotype.



